

Approved For Release 2007/03/07 : CIA-RDP02T06408R001100010010-7

TOP SECRET

PIR

PHOTOGRAPHIC INTERPRETATION REPORT



**CHRONOLOGY OF
KUYBYSHEV AIRCRAFT ENGINE PLANT
FRUNZE 24, USSR**

JANUARY 1968
COPY 116
6 PAGES

25X1

25X1

DECLASS REVIEW by NIMA/DOD

GROUP 1 EXCLUDED FROM
AUTOMATIC DOWNGRADING
AND DECLASSIFICATION

TOP SECRET

Approved For Release 2007/03/07 : CIA-RDP02T06408R001100010010-7

Page Denied

TOP SECRET

CHRONOLOGY OF KUYBYSHEV AIRCRAFT ENGINE PLANT FRUNZE 24, USSR

INTRODUCTION

This report is a study of the chronological development of Kuybyshev Aircraft Engine Plant Frunze 24, located at 53-12-30N 050-15-45E, on the southeast edge of the city of Kuybyshev (Figure 1), USSR, 10 nautical miles (nm) from the Volga River docks and 1 nm from Kuybyshev/Bezmyanka Airfield. The plant is only 0.8 nm southwest of Kuybyshev Airframe Plant Stalin 1 and Kuybyshev Airframe Plant Lenin 18. Plant 24 is served on 3 sides by all-weather roads, on 2 sides by trolley lines, and by a spur of the Moskva-Ryazan-Omsk rail line.

Photography of excellent interpretability has covered Plant 24, and includes of 1942 (Figure 2) and (Figure 3) showing postwar expansion, and photography (Figure 4). photography of varying interpretability was obtained during the 1961-1966 period.

Since the first Plant 24 has occupied an area of approximately 10,878,000 square feet. The roof cover currently is over 3,400,000 square feet. The plant contains 2 very large and 2 small horizontal engine test cells; 8 large L-type engine test cells, as well as 24 small L-type engine test cells at least 7 of which are now closed down; 3 large assembly buildings; 1 assembly/engine-test building; 1 large fabrication/assembly building; 2 large assembly/shop buildings; a fuel pump house/blending building; and a large number of warehouses, administration buildings, utility buildings, and support buildings. No new buildings or facilities of major importance were under construction as of 21

Aircraft Engine Plant Frunze 24 formerly was located in the Moskva area. In 1941, its equipment and that of several smaller plants were evacuated to Kuybyshev, where new buildings had been under construction since 1939. It is reported that series production of the M-38F engine was

under way in 1942. It is probable that tractor parts were also manufactured in the plant at this time. By 1951 the plant was reported to have been engaged in quantity production of M-42 reciprocal-type aircraft engines and, with the

reportedly produced NK-4 turboprop engines, as well as AM-2, AM-3, AM-3A, and AM-4 turbojet engines in the late 1950s. Later reports (1960) indicate that Plant 24 produces the NK-12 turbojet engine, used in the BEAR and CLEAT, as well as that the plant is possibly connected with space propulsion systems. The latest available photography provides no precise clue as to the engine(s) or engine components currently in production.

Detailed information on structures in the plant is provided in Table 1 and Figure 5.

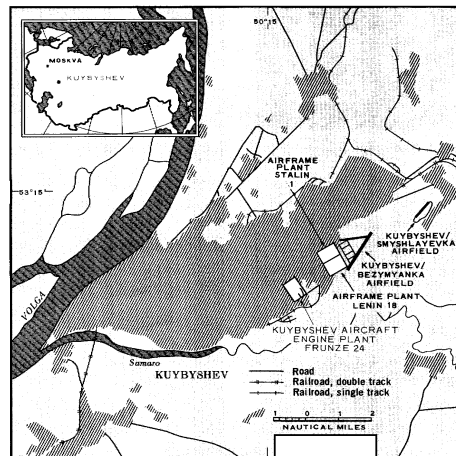


FIGURE 1. LOCATION MAP.

- 1 -

TOP SECRET

HIGHLIGHTS OF CHRONOLOGY

1942

photography of 1942 revealed that the plant comprised approximately square feet of roof cover, consisting primarily of 4 large assembly structures (items 27a, 38a, 59a, and 59b, Figure 5 and Table 1), 2 shops (items 21a and 37) as well as one under construction (item 34a and 34b); a section of an engine-test/storage building (item 12a) containing 24 small L-type test cells; and other shop, administration, and utility buildings.

1959

By this time the plant was well into jet engine production. Apparently to meet new requirements, the plant was expanded by the construction or completion of the following: 5 large new L-type engine test cells (item 27e) on one of the final assembly buildings (item 27a), 5 shops (items 16, 19b, 21b, and 34b), 2 assembly structures (items 25 and 59c), 2 administration structures (items 32a and 61), and a warehouse (item 55). At least 7 of the old small L-type engine test cells were closed down. By 1959 the total plant roof cover had increased to approximately 2,716,500 square feet.

1960-1961

In 1960 and 1961 only relatively unimportant construction and expansion of facilities occurred. Three more large L-type test cells (item 27d), 2 new shop additions (items 27g and 34c), a section of the large fabrication/assembly building (item 28b), and a new major administration building (item 44) were completed.

1962-1963

During this period, again only minor improvements were made at the plant. The southernmost 4 of the 8 large L-type engine test cells (item 27c) were extended horizontally (perhaps to accommodate large NK-12 engines), and

TOP SECRET

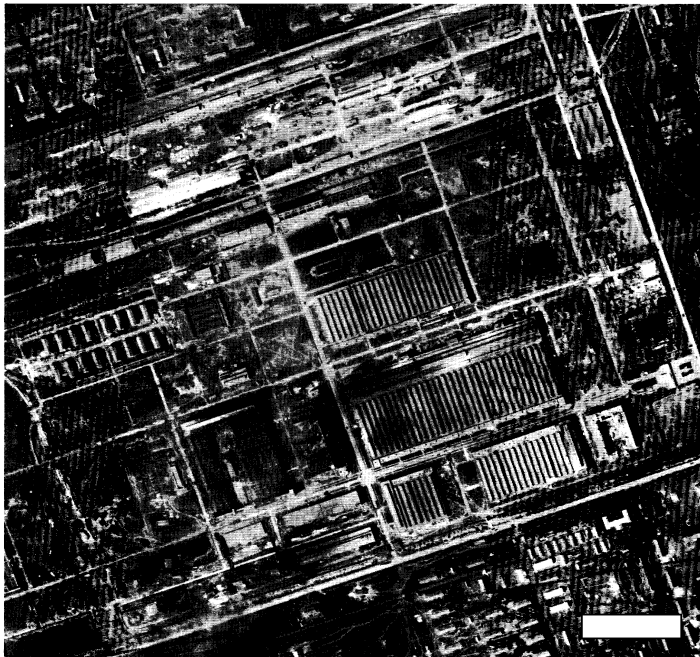


FIGURE 2. KUYBYSHEV AIRCRAFT ENGINE PLANT FRUNZE 24, USSR.

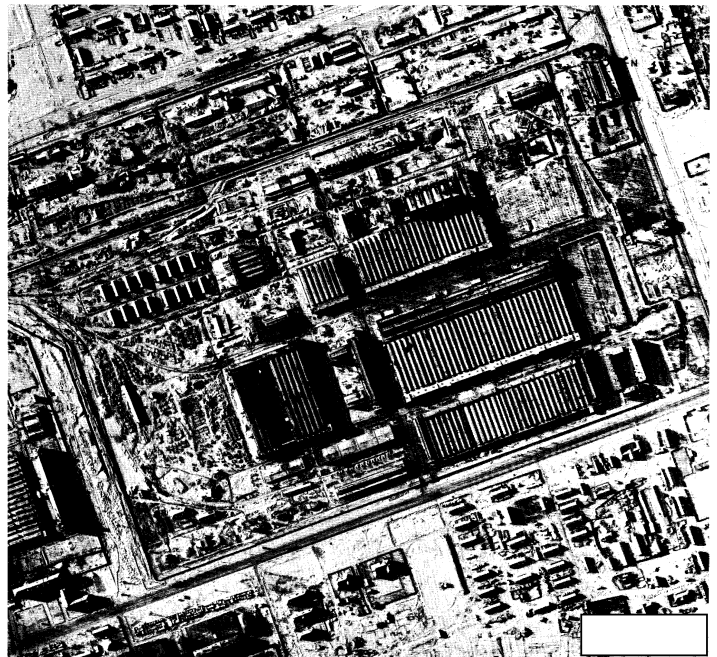


FIGURE 3. KUYBYSHEV AIRCRAFT ENGINE PLANT FRUNZE 24, USSR.

covers were provided for the vertical sections.

An addition (item 28a) to a fabrication/assembly building was completed. The western section of this addition was constructed on the site of a probable small vertical rocket engine test facility, which probably was dismantled at the time this structure was erected. In addition, 2 warehouses (items 3a and 4a) and 3 administration buildings (items 40, 43, and 57) were completed.

1964-1966

In this period a building which contains 2 very large horizontal engine test cells (item 14) was completed, as

well as a nearby forge/foundry (item 17a) and a large assembly/shop building (item 39). In addition, 2 more of the large L-type engine test cells (item 12f) were extended horizontally and provided with covers for the vertical sections.

1967

Thus far this year it is of note that the remaining 2 large L-type engine test cells still have not been modified, i.e., extended horizontally and provided with vertical section covers. The only noteworthy construction currently under way is additions to warehouses,

TOP SECRET

Page Denied

Next 1 Page(s) In Document Denied

TOP SECRET

Table 1. Data on Kuybyshev Aircraft Engine Plant Frunze 24
(Item numbers are keyed to Figure 5)

Item No	Function/Description	Dimensions (ft) L W H	Roof Cover (sq ft)	Date First Observed*	Date Apparently Complete**	Comments	Item No	Function/Description	Dimensions (ft) L W H	Roof Cover (sq ft)	Date First Observed*	Date Apparently Complete**	Comments
1	Switching shack						28	Fabrication/assembly bldg					
2	Locomotive barn						a						
a							b						By [] new section of bldg had been constructed on site of prob rocket engine test facility
b													
3	Warehouse						29	Admin bldg					
a							30	Admin bldg					
b							31	Admin bldg					
4	Warehouse					Medium-sized addition is nearing completion	32	Admin bldg					
a							a						
b							b						
5	Shop					Small addition is u/c	33	Utility bldg					
a							34	Assembly/shop bldg					
b							a	Assembly					
c							b	Shops (2)					
6	Storage bldg						c	Shop					
7	Warehouse					Small addition is u/c	35	Utility bldg					
a							36	Utility bldg					
b							37	Shop					
8	Warehouse						38	Final assembly bldg					
9	Utility bldg						a						
10	Utility bldg						b						
11	Fuel control bldg						c						
12	Engine test/storage bldg					Bldg is used for small-engine test and prob for engine storage (contains 24 small L-type test cells)	39	Assembly/shop bldg					Minor addition is u/c
a	Engine test/storage						40	Admin bldg					
b	Small horizontal engine test cells (2)					One structure containing 2 small engine test cells	41	Admin bldg					
13	Fuel pumphouse/blending bldg					In 1959 new tanks were being installed adjacent to bldg	42	Admin bldg					
14	Very large horizontal engine test cells (2)					One bldg containing 2 jet engine test cells	43	Admin bldg					
15	Post cooling towers (8)					U/C	44	Admin bldg					
16	Shop						45	Utility bldg					
17	Forge/foundry						46	Greenhouse					
a	Forge/foundry						47	Utility bldg					
b	U/I addition						48	Utility bldg					
18	Sand storage & processing bldg					Small addition u/c	49	Utility bldg					
19	Maintenance shop						a						
a							b						
b							50	Utility bldg					
20	Warehouses (16)						51	Utility bldg					
21	Shop/forge/foundry bldg						52	Warehouse					
a	Shop & forge/foundry						53	Utility bldg					
b	Shop						54	Storage bldg					
22	Utility bldg						55	Warehouse					
23	Utility bldg						56	Warehouse					
24	Shop						a						Major addition is u/c
a							b						
b							57	Admin bldg					
25	Assembly bldg						58	Admin bldg					
26	Utility bldg						59	Assembly bldg					
27	Assembly/engine-test bldg						a						
a	Assembly						b						
b	Admin/engineering wing						c						
c	Engine test cell extensions (4)						d	Utility wing					
d	L-type engine test cells (3)						60	Admin engineering bldg					
e	L-type engine test cells						61	Admin bldg					
f	Engine test cell extensions (2)												
g	Shop												

NOTE: Horizontal measurements are accurate to within ± 5 feet or 3%, whichever is greater. Heights are accurate to within ± 10 feet.

*Unless otherwise noted, the date first observed is the first date the item was recognizable as a structure.

**The date apparently complete is the first date the structure outwardly appeared complete. This date may not be related to the date the structure was operational.

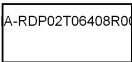
TOP SECRET

25X1



Approved For Release 2007/03/07 : CIA-RDP02T06408R001100010010-7

TOP SECRET



25X1



REFERENCES

25X1



MAPS OR CHARTS

SAC series, scale 1:200,000

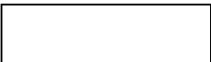
REQUIREMENT

CIA. C-DI5-82,973

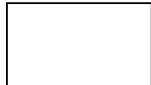
NPIC PROJECT

11212EJ/66

TOP SECRET



25X1
25X1



Approved For Release 2007/03/07 : CIA-RDP02T06408R001100010010-7

~~TOP SECRET~~

TOP SECRET

Approved For Release 2007/03/07 : CIA-RDP02T06408R001100010010-7